

REMARKS

Claims 1, 5 and 15 have been objected to for the reasons set forth on page 1 of the Examiner's Office Action letter. As the Examiner will note, claims 1, 5 and 15 have been amended in the manner suggested by the Examiner and accordingly, it is believed that these objections have been eliminated.

It is noted, with appreciation, that the Examiner has indicated that claims 12-14, although objected to as being dependent upon a rejected base claim, would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 1-6, 8-9 and 15 have been rejected by the Examiner under 35 USC 102(b) as being anticipated by Sagou et al., JP 11115213. This rejection is respectfully traversed.

The present invention relates to an ink jet printer provided with a device for dispensing ink pellets of substantially identical shape and also to a dispensing device suitable for use in an ink jet printer. According to the present invention, in dispensing ink pellets for use in an ink jet printer it is imperative that the ink pellets can be separated and dispensed with a high degree of reliability. The dispensing device of the present invention utilizes a first boundary means whereby the ink pellets form a single row in the direction of flow in the duct directly preceding the separating unit and a second boundary which forms the ink pellets into a single layer in the duct directly preceding the single row. The layer of pellets forms a small angle with respect to the horizontal plane. Thus, the present invention has defined a supply path which, advantageously, extends substantially horizontally such that the pellets are supplied one-by-one to the separating unit.

The Sagou et al. reference, JP 11115213A discloses in Fig. 4 a dispensing device for an ink jet printer which is suitable for dispensing single pellets X that roll down over carrying path 33 to an ink supply port 24a. As can be readily seen by comparing Fig. 4 from the Japanese reference with Figs. 2 and 3 of the present application, that the structure as defined in Fig. 4 of the Japanese reference is completely different from the structure as defined in Figs. 2 and 3 of

the present application and thus by definition the path of the ink pellets dictated by the respective structures is completely different. Thus, although there is some similarity in the holder 20 of the present application compared to the holder 17 in Fig. 4 of the Japanese reference, this is where any similarity between the present invention and the prior art ends. Thus, the Japanese reference does not contain a transport duct 21 (see Figs. 2 and 3 of the present application) for transporting ink pellets from an upstream location to a downstream ink pellet separating unit. In fact, such a unit cannot be found in the Japanese reference inasmuch as the pellets discharge from chamber 17 are channeled, not as a layer as in the transport duct 21 of the present invention, but rather individually through orifice 17b where the ink pellets are individually picked up by a rotor 34b for further conveyance. Also, the further conveyance is not in a substantially horizontal plane as defined by the present invention but rather in a vertical plane where the ink pellets X are discharged from the top of the stack 34a onto the plate 33. Thus, the transport duct 21 which defines the ink pellets as a layer is completely absent from the reference patent. Also, as the layer of ink pellets is reduced to a single row of ink pellets, the ink pellets are still maintained in a substantially horizontal plane until they are individually separated from the system. Thus the vertical conveying system 34a shown in Fig. 4 of the reference patent is completely non-existence in the system of the present invention. The construction of the device shown in Fig. 4 of the Japanese reference has a number of disadvantages, the most prominent one being the abrupt change from a large extended two-dimensional ink pellets supply in case 17 to a single row of ink pellets forced by boundary means 17b. This abrupt change means that the flow of the ink pellets is relatively unreliable whereby obstructions in the conveyance of the ink pellets are likely to occur. Also, the supply capacity of case 17 is relatively small given the fact that it holds one single layer of ink pellets (two-dimension case).

Contrary to the teachings of the Japanese reference, the present invention defines a dispensing device wherein a first boundary means causes the ink pellets to form as a single layer in a duct, said layer having a dimension defined by a plurality of ink pellets extending in two directions. This construction characterizes an ink pellet path that provides a very reliable transition from an ink pellet holding case to a single row. Thus, obstructions seldom occur given the relatively smooth transition achieved by utilizing the dispensing device of the present

invention. In addition, the present invention opens the possibility of dispensing a very large quantity of ink pellets that extends in three directions. Accordingly, it is believed that the subject matter of claims 1-6, 8-9 and 15 are clearly distinguishable over the Sagou et al. reference. And thus, reconsideration of the Examiner's rejection of these claims under 35 USC 102(b) is respectfully requested.

Claims 7 and 10-11 are rejected by the Examiner under 35 USC 103(a) as being unpatentable over Sagou et al. in view of Mori, JP 11179012A. This rejection is respectfully traversed.

On page 5 of the Examiner's Office Action, the Examiner lists what, in his opinion, are the differences between the present invention and the Sagou et al. reference. Recognizing these deficiencies, the Examiner relies upon the Mori Japanese reference in an attempt to suggest the invention as defined by claims 7, 10 and 11 of the present application. First of all, it certainly is not clear from the Japanese Fig. 10 reference 21 that the elements disclosed therein define a convex budge directed towards a layer at a place where the layer, in the transverse direction of flow, extends over to ink pellets. In fact, there is no suggestion of "ink pellets" in the Mori reference inasmuch as the Japanese patent is directed to a sorting device which is utilized in a pachinko ball passage and is not even remotely concerned with an ink jet printer, or a dispensing device for dispensing ink pellets in a ink jet printer as defined by the present invention. It can be readily understood that the problems associated with the dispensing ink pellets in an ink jet printer are not even remotely related to any problems which might exist in a pachinko device which is, in many respects, the Japanese version of the American pin ball machine. Thus, one skilled in the art, looking to solve problems in the dispensing system of an ink jet printer would certainly not be lead to pachinko game technology for a solution to such problems. In the absence of some suggestion in either the primary or secondary reference which would lead one skilled in the art to combine the teachings of the references as suggested by the Examiner, it is believed that the Examiner is completely reconstructing the teachings of the references in view of the Applicant's own disclosure.

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Since the Examiner has failed to establish a *prima facie* case of obviousness required by 35 USC 103, it is believed that claims 7, 10 and 11 are clearly patentably distinguishable over the references relied upon by the Examiner, either alone or in combination.

Accordingly, in view of the above amendments and remarks, reconsideration of the rejections and allowance of the claims of the present application are respectfully requested.

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Respectfully submitted,

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